



Predicting Treatment Response of Adolescents with Serious Emotional Disturbance

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DISCLOSURE

- The speaker has no conflicts to disclose



THE PROBLEM

- 10% of adolescents are affected with serious emotional disturbance (SED)
- SED refers to psychiatric diagnosis plus functional impairment
- 4x more likely drop out or be arrested
- 75% have poor treatment outcomes
- Involved in multiple child-serving agencies
- Tragic and costly consequences (~11.75 billion/per year)



THE PROBLEM

- The Comprehensive Community Mental Health Program for Children and their Families (i.e., System of Care; SOC)
- 42 - 62% of children and adolescents improve in SOC
- But goal of SOC is for all children and adolescents to improve
- Two factors require attention: Adolescent personal strengths and family functioning



LITERATURE & EXISTING GAPS

- Adolescent personal strengths
 - Emotions, behaviors, characteristics that promote sense of accomplishment, build satisfying relationship, and achieve age appropriate tasks
 - Research designs mainly descriptive & cross sectional
- Family functioning
 - How well families communicate, work well, and problem solve together
 - The extent to which family variables, such as family functioning improve in SOC is unclear
- Age, race, gender, caregiver type
 - Maybe associated with differential treatment response



PURPOSE

SOC philosophy of strength-based treatment approach & core values of

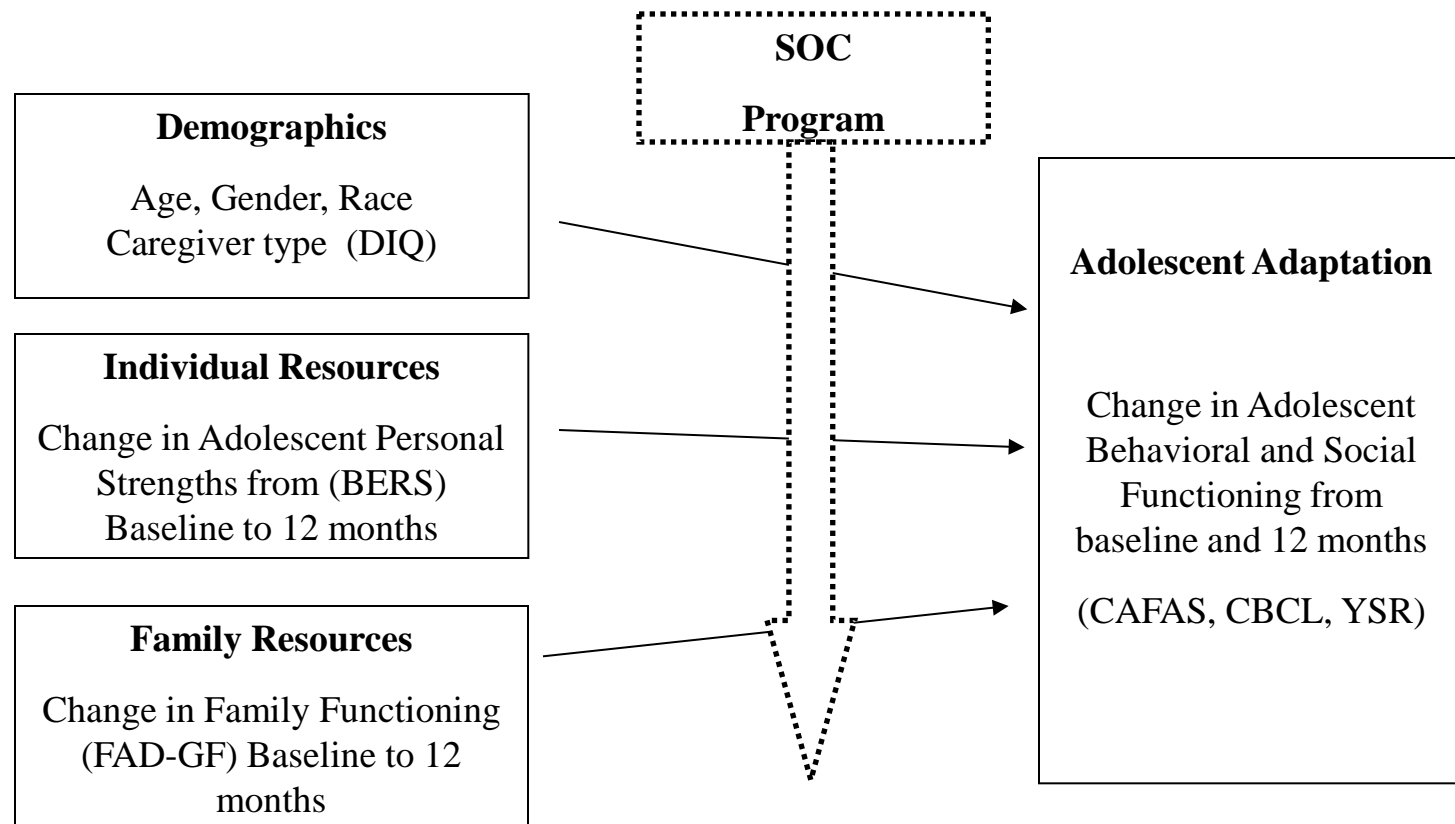
- Child-driven & family-centered
- Community-based
- Culturally & linguistically competent care

Specific aim was to examine whether changes in adolescent personal strengths and family functioning over 12 months predicted changes in behavioral and social functioning for adolescents with disruptive disorders who participated in a SOC program



CONCEPTUAL FRAMEWORK

To frame the study, concepts were borrowed from the Double ABCX Model of Family Stress & Adaptation



MEASURES

Study variable	Measures	Reliability (Cronbach's alpha)	Time Points	
			T1	T2
Demographics (Age, Gender, Race, Caregiver type)	Demographic Information Questionnaire	Not Applicable	n=179	n=114
Adaptation (Change in Adolescent Behavioral and Social Functioning between Baseline and 12 months)	Child Behavioral Checklist/4-18 (CBCL) (Internalizing T-score, Externalizing T-score, and Total Problem T-score)	.90 - .92	n=179	n=114
	Child and Adolescent Functional Assessment Scale (CAFAS) (Total CAFAS score)	.63 - .78		
Individual Resources (Change in Adolescent Personal Strengths)	Behavioral and Emotional Rating Scale (BERS)	.79 - .99	n=179	n=114
Family Resources (Change in Family Functioning)	Family Assessment Device (FAD) (General Functioning scale score; FAD-GF)	.92	n=179	n=114



METHODS

- Secondary data analyses: Dawn Project Evaluation Study dataset
- Sample: 179 adolescents with disruptive disorders & their caregivers
 - Adolescents: 12 -17 years (Average age =14), 52% African American, 71% male; 53% referred from juvenile center
 - Caregivers: 86% female, 22-73 years (M = 43)
Caregiver type: primary family member and other
- Data collected through interviews of caregivers about the adolescents



BASELINE DATA

- Baseline clinical characteristics & change at 12 months

Measures	n	Baseline M(SD)	Baseline -12 M p-values
Internalizing CBCL	179	61.14(12.03)	.000
Externalizing CBCL	179	69.92(11.97)	.000
Total CBCL	176	69.30(11.92)	.000
CAFAS	179	126.42(50.89)	.000
BERS	176	88.46(18.89)	.492
FAD-GF	165	2.90(.50)	.004



BASELINE DATA

- Age: Younger adolescents had more functional impairment
- Race: African American adolescents looked better
- Gender : Girls had worse behavior problems and fewer personal strengths
- Caregivers: Primary family caregivers reported worse externalizing symptoms and functional impairment
- No difference between adolescents with and without data at 12 months



SPECIFIC AIM & HYPOTHESES

H1a	Changes in adolescent personal strengths between baseline and 12 months will be negatively associated with changes in adolescent behavioral and social functioning
H1b	Changes in family functioning between baseline and 12 months will be negatively associated with changes in adolescent behavioral and social functioning
H1c	The strength and direction of predictors will not vary by race (African American versus Caucasian)



DATA ANALYSES

- Used caregiver-rated data for 114 adolescents who had data at baseline and 12 months
- Used Multivariate multiple regressions (MVMR)



FINDINGS

- H1a supported.
 - Change in caregiver-rated adolescent personal strengths (Δ BERS) was negatively associated with change in adolescent behavioral and social functioning.

Independent Variable	Wilks' Lambda	p
Δ BERS	.591	.000
Age	.924	.097
Race	.962	.431
Gender	.968	.520
Caregiver type	.952	.297



FINDINGS

○ Univariate regressions test using

- Bonferoni adjustment of $.05/4 = .0125$
- $p < .0125$

Model	Δ Internalizing CBCL	Δ Externalizing CBCL	Δ Total CBCL	Δ CAFAS
Δ BERS	.000	.000	.000	.000
Age	.043	.794	.991	.227
Race	.377	.432	.766	.634
Gender	.101	.982	.506	.580
Caregiver type	.313	.243	.947	.165
R squared	17.7	40.6	33.7	34.8



FINDINGS

- H1b was not supported
 - Change in caregiver-rated family functioning (Δ FAD) was not significantly associated with change in adolescent behavioral and social functioning

Independent Variable	Wilks' Lambda	p
Δ FAD	.939	.171
Age	.905	.038
Race	.930	.116
Gender	.973	.599
Caregiver type	.956	.326



FINDINGS

- H1c was supported
- Strength and direction of predictors did not vary with race

Predictors	Wilks' Lambda	p
Δ BERS x Race	.969	.538
Δ BERS	.714	.000
Age	.918	.076
Race	.961	.419
Gender	.956	.346
Caregiver type	.956	.326

Predictors	Wilks' Lambda	p
Δ FAD x Race	.961	.393
Δ FAD	.970	.547
Age	.905	.038
Race	.930	.116
Gender	.973	.599
Caregiver type	.956	.326



SUMMARY OF FINDINGS

- Outcome Variable – Change in adolescent behavioral and social functioning
- H1a
 - Change in adolescent personal strengths was a significant predictor
- H1b
 - Change in family functioning was not a significant predictor
- H1c.
 - Strength and direction of predictors did not vary by race



CONTRIBUTIONS

○ Limitations

- Non-random selection,
- threats to internal validity

○ Clinical implications

- Supports strength-based treatment approach
- Race, gender, and referral issues
- Family variables



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- **References** included in handout

